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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/839,499

04/20/2001

Paul F. Struhsaker

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EXAMINER

EWART, JAMES D

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,499

Applicant(s)

STRUHSAKER, PAUL F.

Examiner

James D Ewart

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. The objection to the specification is withdrawn.
2. The applicants arguments regarding prior art rejections, filed March 15, 2004, have been fully considered by the Examiner and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lerman.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-3 & 16-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Lerman (EP 0690638).

Referring to claim 1, Lerman teaches in a fixed wireless access (FWA) communication system having at least a first fixed-site base station (Figure 3, within dashed lines) and at least a first fixed-site subscriber station (Figure 3; 40) capable of communicating with the first fixed-site base station, an improvement of apparatus for facilitating radio communication with a mobile station (Column 1, Lines 10-20), said apparatus comprising: a first local-network radio transceiver positioned at the at least the first fixed-site subscriber station (Figure 3, 44) said first local network radio transceiver for selectably transceiving communication signals with the

mobile station upon a first local radio link formed between the first local-network radio transceiver and the mobile station (Figure 3, F(2nd)) when the mobile station is positioned within a selected range of the first fixed-site subscriber station (Column 8, Lines 3-7).

Referring to claim 2, Lerman further teaches wherein the fixed-site subscriber station includes a large-area-network transceiver positioned thereat for transceiving communication signals upon a large-area radio link with the fixed-site base station (Figure 3, F(CONVERSION)) and wherein said first local-network radio transceiver is coupled to the large area-network transceiver such that communication signals generated at the fixed-site base station, communicated upon the large-area radio link and received at the large-area-network transceiver, are routed to said first local-area-network transceiver to be communicated to the mobile station upon the local radio link (Figure 3).

Referring to claim 3, Lerman further teaches wherein communication signals generated at the mobile station and communicated upon the local radio link to said first local-network transceiver are routed to the large-area-network transceiver to be communicated upon the large-area radio link to the fixed-sited base station (Figure 3).

Referring to claim 16, Lerman teaches in a method for communicating in a fixed wireless access (FWA) communication system having at least a first fixed-site base station (Figure 3, within dashed lines) and at least a first fixed-site subscriber station (Figure 3; 40) capable of communicating with the first fixed-site base station (Figure 3), an improvement of a method for facilitating radio communications with a mobile station (Column 1, Lines 10-20), said method

comprising: positioning a first local-network radio transceiver at the at least the first fixed-site subscriber station (Column 3, Lines 36-38); and selectably transceiving communication signals with the mobile station when a first local radio link formed between the first local-network radio transceiver and the mobile station (Figure 3 F(2ND)) when the mobile station is positioned within a selected range of the first fixed-site subscriber station (Column 3, Lines 36-38).

Referring to claim 17, Lerman further teaches wherein the first fixed-site subscriber station includes a large-area-network transceiver positioned thereat for transceiving communication signals upon a large-area radio link with the fixed-site base station (Figure 3, F(CONVERSION)) and wherein said operation of positioning comprises coupling the first local network radio transceiver to the large-area-network transceiver such that communication signals generated at the fixed-site base station, communicated upon the large-area radio link and received at the large-area-network transceiver, are routed to the first local-area-network transceiver to be communicated to the mobile station upon the local radio link (Figure 3).

Referring to claim 18, Lerman further teaches wherein the at least the fixed site subscriber station comprises the first fixed-site subscriber station and at least a second fixed-site subscriber station (Column 4, Lines 3-11), said method further comprising the operation of positioning a second local-network radio transceiver at the second fixed-site subscriber station (Column 4, Lines 3-11).

4. Claim 4 is rejected under 35 USC 103(a) as being unpatentable over Lerman in view of Moldavsky et al. (U.S. Patent No. 5,115,463) and further in view of Chewning, II et al (U.S. Patent No. 5,416,831).

Referring to claim 4, Lerman teaches the limitations of claim 4, but does not teach that the transceivers are located within a rack assembly wherein transceivers are card-mounted. Moldavsky et al. teaches that the transceivers are located within a rack assembly wherein transceivers are card-mounted (Column 12, Lines 38-53). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Lerman with the teaching of Moldavsky et al. wherein the transceivers are located within a rack assembly wherein transceivers are card-mounted to limit the production of intermodulation products to FCC acceptable limits (Column 11, Lines 42-43). Lerman and Moldavsky et al. teach the limitations of claim 4, but do not teach connecting cards to an expansion slot. Chewning, II et al teaches connecting cards to an expansion slot (Column 13, Lines 39-43). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Lerman and Moldavsky et al. with the teaching of Chewning, II et al of connecting cards to an expansion slot to establish a connection with a bus (Column 13, Lines 40-41).

5. Claim 5-10 & 19 is rejected under 35 USC 103(a) as being unpatentable over Lerman in view of Holland et al. (U.S. Patent No. 5,673,307).

Referring to claims 5 and 6, Lerman further teaches wherein the at least the first fixed-site subscriber station comprises the first fixed-site subscriber station and at least a second fixed-site subscriber station (Column 4, Lines 3-11), and wherein said apparatus further comprises: a second local-network transceiver positioned at the second fixed-site subscriber station (Column 4, Lines 3-11), said second local-network radio transceiver for selectably transceiving communication signals with a mobile station upon a second local radio link formed between the second local-network radio transceiver and a mobile station and further teaches providing cellular services within a building (Column 4, Lines 1-11), but does not teach wherein the mobile station communicates with the second fixed site subscriber station when the mobile station is positioned within a selected range of the second fixed-site subscriber station. Holland et al teaches wherein the mobile station communicates with the second fixed site subscriber station when the mobile station is positioned within a selected range of the second fixed-site subscriber station (Column 1, Lines 2-31 & Column 3, Lines 47-56 & Column 4, Lines 50-57). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Lerman with the teaching of Holland et al wherein the mobile station communicates with the second fixed site subscriber station when the mobile station is positioned within a selected range of the second fixed-site subscriber station to maintain an established communication link when the mobile phone moves from one cell unit to another (Column 1, Lines 27-31).

Referring to claim 7, Holland et al further teaches wherein the first cellular area defined by said first local-network transceiver and the second cellular area defined by said second local-

network transceiver at least partially overlap (Figure 2 and Column 1, lines 54-64) and wherein selection is made of with which one of said first and second local-network transceivers, respectively, that the mobile station communicates responsive to determination of at least one communication parameter (Column 3, Lines 34-36).

Referring to claim 8, Holland et al further teaches wherein the at least one communication parameter responsive to which selection is made of with which one of said first and second local-network transceiver that the mobile station communicates comprises a signal quality parameter (Column 3, Lines 34-36).

Referring to claim 9, Holland et al further teaches at least one communication parameter responsive to which selection is made of with which one of said first and second local-network transceivers that the mobile station communicates wherein the parameter is load related (Column 5, Lines 15-20)

Referring to claims 10 and 19, Holland et al further teaches wherein the mobile station is permitted movement at least between the first cellular area and the second cellular area and wherein communication hand-offs are performed between said first local-network transceiver and said second local-network transceiver responsive to movement of the mobile station between the first cellular area and the second cellular area defined by said first local-network transceiver and said second local-network transceiver, respectively (Column 1, Lines 27-31 & Column 5, Lines 9-20).

6. Claim 11-15 & 20 are rejected under 35 USC 103(a) as being unpatentable over Lerman in view of Holland et al. and further in view of St-Pierre et al (U.S. Patent No. 5,901,352).

Referring to claims 11 and 20, Lerman and Holland et al teach the limitations of claims 11 and 20, but do not teach a routing map coupled to the at least the first fixed-site base station, said routing map containing an indication of in which of the first cellular area and the second cellular area that the mobile station is positioned. St-Pierre et al. teaches a routing map coupled to the at least the first fixed-site base station, said routing map containing an indication of in which of the first cellular area and the second cellular area that the mobile station is positioned (Column 23, Lines 31-35). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Lerman and Holland et al with the teaching of St-Pierre et al. wherein a routing map is coupled to the at least the first fixed-site base station, said routing map containing an indication of in which of the first cellular area and the second cellular area that the mobile station is positioned to consolidate and manage multiple networks and associated services in a more efficient and centralized manner (Column 2, Lines 20-23).

Referring to claim 12, St-Pierre et al. further teaches wherein the at least the first fixed-site base station is connected to an access processor and wherein said routing map is located at the access processor (Column 2, Lines 54-64).

Referring to claim 13, St-Pierre et al. further teaches wherein the indication of in which cellular area that the mobile station is located is updated responsive to changes in location of the mobile station (Column 1, Lines 59-65).

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Referring to claim 14, St-Pierre et al. further teaches wherein routing of communication signals to the mobile station is selected responsive to values of the indication contained thereat (Column 1, Lines 50-67 & Column 2, Lines 54-64).

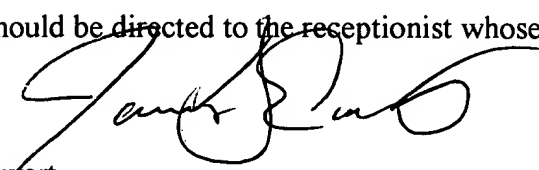
Referring to claim 15, St-Pierre et al. further teaches wherein, subsequent to updating of the values of the indication contained thereat, and responsive to hand-off of communications between said first local network radio transceiver and said second local-network radio transceiver, undelivered communication signals are rerouted according to updated values of the indication (Column 1, Lines 50-67 & Column 2, Lines 54-64).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D Ewart whose telephone number is (703) 305-4826. The examiner can normally be reached on M-F 7am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703)308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.


Ewart
April 28, 2004


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